

### **Remarks**

The above Amendments and these Remarks are in reply to the Office Action mailed December 15, 2004.

Claims 1-46 were pending in the Application prior to the outstanding Office Action, of which claims 33-46 were withdrawn from consideration. In the Office Action, claims 1-32 were rejected. In the present reply, the Applicant has amended claims 7-12, 20, and 21 and added claim 47. Accordingly, Claims 1-32 and 47 are currently pending. The Applicant respectfully requests reconsideration.

### **Rejections Under 35 USC 102**

Within the Office Action, Claims 1-32 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,755,841 to Fraser et al (hereinafter Fraser). In addition, Claims 1-4, 7-15, 17, 20-27 and 30-32 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,582,437 to Dorchak et al (hereinafter Dorchak). The Applicant respectfully disagrees.

The present invention is directed to a tool which cuts channels or grooves in the vertebral bodies to prepare the vertebral bodies to receive the keels of an intervertebral implant. The tool includes a cutter which preferably has two tines, whereby each tine preferably has a leading edge, an inner surface, and an outer surface. The cutter includes a blade which preferably protrudes upward from each tine's inner surface and a blade which preferably protrudes downward from each tine's outer surface. It is preferred that the leading edge of each tine is beveled. When the tool is inserted between the vertebral bodies, the upper blades preferably cut keel receiving channels in the upper vertebral body and the lower blades

preferably cut keel receiving channels in the lower vertebral body. In addition, the thickness of the cutter tool preferably separates the upper and lower vertebral bodies apart to receive the implant.

Fraser teaches a medical installation tool having two levers with a proximal end and a distal end. Fraser teaches that between the proximal and distal ends, the tool includes a fulcrum by which the user is able to increase the distance between the distal ends by forcing the proximal ends toward each other. Fraser teaches that the distal end of the two levers can be configured to have blade tips 50A, 50B, whereby the blade tips are sized to facilitate their placement between vertebral bodies. As shown in Figures 8A-8D, (once the blade tips 50A, 50B are inserted between the vertebral bodies) the surgeon forces the proximal ends of the levers together to cause the blade tips 50A, 50B to separate, thereby separating the vertebral bodies far enough to accept insertion of the implant 24. A pusher block 18, which holds the implant 24, is forced along the length of the levers and delivers the implant 24 between the vertebral bodies.

Claim 1 recites that the cutter includes a first cutting blade on an inner side of each tine and a second cutting blade on an outer side of each tine. In contrast to claim 1, Fraser does not teach that the blade tips 50A, 50B are used for cutting. Instead, the blade tips 50A, 50B are used to lodge the ends of the levers between the vertebral bodies so that the tool can get a sufficient grip between the vertebral bodies and effectively separate vertebral bodies apart. Thus, there is no teaching in Fraser that the blade tips 50A, 50B are cutting blades. In addition, Fraser does not teach that the blade tips are on the inner and outer side of each lever. As shown in Figure 8A in Fraser, the outer side of the top lever is in contact with the upper vertebral body and the outer side of the bottom lever is in contact with the lower vertebral body. The blade tips would not include any protrusions on the outer surface because the blade tips would then

have a larger thickness and would prevent the blade tips from being able to be lodged between the vertebral bodies. For at least these reasons, Claim 1 is distinguishable over Fraser. Accordingly, Claim 1 is in a condition for allowance.

Claims 2-12 are dependent on independent Claim 1. As stated above, Claim 1 is distinguishable over the teachings of Fraser and is therefore allowable. Accordingly, Claims 2-12 are thus also allowable for being dependent on an allowable base claim.

Claim 13 recites, among other things, that the cutter includes an upper cutting blade located on an inner side of each of the tines. In contrast to claim 13, Fraser does not teach an upper cutting blade which is located on an inner side of each tine. As stated above, the blade tips in Fraser are not for cutting, but to lodge the levers between the vertebral bodies. In addition, the inner surfaces of the levers do not include any protrusions or such since the pusher 18 must be able to easily insert the implant 24 between the vertebral bodies once they are separated. Thus, there is no teaching, or any need, in Fraser for the inner surface of each lever to include an upper cutting blade to extend therefrom. For at least these reasons, Claim 13 is distinguishable over Fraser. Accordingly, Claim 13 is in a condition for allowance.

Claims 14-22 are dependent on independent Claim 13. As stated above, Claim 13 is distinguishable over the teachings of Fraser and is therefore allowable. Accordingly, Claims 14-22 are thus also allowable for being dependent on an allowable base claim.

Claim 23 recites, among other things, that the cutter includes a lower cutting blade located on an outer side of each of the tines. In contrast to claim 23, Fraser does teach a lower cutting blade which is located on the outer side of each lever. As stated above, the blade tips in Fraser are not for cutting, but to lodge the tines between the vertebral bodies. In addition, the blade tips would not include any

protrusions on the outer surface because the blade tips would then have a larger thickness which would prevent the blade tips from being able to be lodged between the vertebral bodies. For at least these reasons, Claim 23 is distinguishable over Fraser. Accordingly, Claim 23 is in a condition for allowance.

Claims 24-32 are dependent on independent Claim 23. As stated above, Claim 23 is distinguishable over the teachings of Fraser and is therefore allowable. Accordingly, Claims 24-32 are also allowable for being dependent on an allowable base claim.

Dorchak teaches a tool for promoting bone growth through an already inserted fusion cage implant. In particular, Dorchak discloses in Figure 36 a tool having a shaft 272 with a forked portion 280 angled upward with respect to the shaft 272. The forked portion 280 includes a pair of pointed ends which are the blades 278 (Dorchak, Col 19, Line 62; Figure 36). In operation, the tool is inserted into the implanted fusion cage, whereby the pointed blades 278 are used to scrape bone away from the vertebral bodies from within the fusion cage (see Figure 32) by moving the handle in a back and forth motion.

In contrast to Claim 1, Dorchak does not teach that the cutting blades are located on the inner and outer sides of each of the tines. Instead, the cutting blades in Dorchak are pointed at the ends of the fork 280 to scrape bone from the vertebral bodies via the top and bottom openings 112 in the implant. In addition, Dorchak does not teach that the tool is used to prepare the vertebral bodies for the implant. As stated above, the tool in Dorchak is used to scrape bone material away after the fusion cage has been implanted. For at least these reasons, Claim 1 is distinguishable over Dorchak. Accordingly, Claim 1 is in a condition for allowance.

Claims 2-4 and 7-12 are dependent on independent Claim 1. As stated above, Claim 1 is distinguishable over the teachings of Dorchak and is therefore allowable. Accordingly, Claims 2-4 and 7-12 are also allowable for being dependent on an allowable base claim.

In contrast to Claim 13, Dorchak does not teach that the cutting blades are located on the inner side of each of the tines. Instead, as stated above, the cutting blades in Dorchak are at the ends of the angled fork 280 to scrape away bone via the openings in the implant. In addition, Dorchak does not teach that the tool is used to prepare the vertebral bodies for the implant. As stated above, the tool in Dorchak is used to scrape bone material away after the fusion cage has been implanted. For at least these reasons, Claim 13 is distinguishable over Dorchak. Accordingly, Claim 13 is in a condition for allowance.

Claims 14, 15, 17 and 20-22 are dependent on independent Claim 13. As stated above, Claim 13 is distinguishable over the teachings of Dorchak and is therefore allowable. Accordingly, Claims 14, 15, 17, and 20-22 are also allowable for being dependent on an allowable base claim.

In contrast to Claim 23, Dorchak does not teach lower cutting blades located on the outer sides of each of the tines. Instead, as stated above, the cutting blades in Dorchak are at the ends of the angled fork 280 to scrape away bone via the openings in the implant. In addition, Dorchak does not teach that the tool is used to prepare the vertebral bodies for the implant. As stated above, the tool in Dorchak is used to scrape bone material away after the fusion cage has been implanted. For at least these reasons, Claim 23 is distinguishable over Dorchak. Accordingly, Claim 23 is in a condition for allowance.

Claims 24-27 and 30-32 are dependent on independent Claim 23. As stated above, Claim 23 is distinguishable over the teachings of Dorchak and is therefore allowable. Accordingly, Claims 24-27 and 30-32 are also allowable for being dependent on an allowable base claim.

## New Claim

The Applicants have added new Claim 47. The Applicants submit that the new claim is fully supported by the specification and are allowable over the prior art. The Applicants respectfully request allowance of new Claim 47.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent. The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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